

The Hercules Engine News

by Glenn Karch
20601 Old State Road
Haubstadt, Indiana 47639

It will soon be time to start dragging those engines out of storage to get them ready for another show season. That means that a lot of us will be tuning up Hercules, Economy, ARCO and Jaeger engines. After sitting around all winter, the fuel system may need some attention. Starting out at the fuel tank on the normal hit and miss engine, let's check it all out.

Does the fuel tank have any leaks? Does the fuel tank have loose dirt or rust in it? A dirty fuel tank should be cleaned out if possible, and then some tank sealer should be poured in, sloshed around and then the surplus poured back out. Not only will that prevent small leaks, it will also "glue" any loose material down, so it won't move into the rest of the fuel system. Set the tank aside and let it dry a couple of days. The included illustration is a schematic of a

typical Hercules system.

If the tank has a vent on the top, check to see that it is open. If there is no vent, drill a 1/4" hole in the top front and solder in a short piece of 1/4" copper tubing. The vent is necessary to make the filling of the fuel tank go easily. The fuel pipe coming from the tank should have a brass screen soldered into the end of it to prevent particles from entering the rest of the fuel system. Check the fuel pipe to see that the inside is clean. There should be a 1/4" pipe T on the outer end of the pipe with a removable pipe plug, so the tank can be easily drained after you are through with the engine for the season.

The check in the check valve cage should move freely and not be sticky from old gasoline. Put a few drops of liquid in the top of the check valve to see that it is sealing. The fitting that screws into the top of the check valve must have notches filed or sawed into the bottom rim of it, so that when the check rises, it does not shut off the fuel going into the line to the mixer.

If the engine still has its original fuel line and fittings, it has likely been screwed on and off many times. To as-

sure tight joints, it might be well to use new fittings and make a new fuel line with new ferules. It is also a good idea to use thread sealing compound or tape on all pipe thread connections. The fuel adjustment valve should have a nice tapered point without rust pits. A new one can easily be made from 3/16" NC threaded rod.

Have you ever noticed that the fuel inlet hole in the mixer is not in the center but, rather, at the top of the threaded hole where the fitting goes in? That is so that the fuel will stay in the line during idle strokes and not run out. In fact, no part of the fuel line to the mixer should rise above the mixer fitting.

Now, if all things are done right and with fuel in the tank and with the choke on, a couple times through the intake stroke should bring fuel to the mixer. Assuming everything else is in proper working order, the engine ought to fire right up. If the engine won't start with fuel in the mixer, it is time to stop cranking and to start looking for ignition problems. But that is a problem for another time. ○

